



**Yehouda Harpaz**

129 Corrie Road  
Cambridge CB1 3QQ  
UK

Phone +44 1223 253795

Fax +44 1223 257812

Home Phone +44 1223 513655

Email yeh@maldo.com

June 5, 2004

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JUN 14 2004 AM 8:05

BOARD OF PATENT APPEALS  
AND INTERFERENCES

Re: Application No. 10/031,890 - Brief of appeal

- 1) *Party of interest:* Yehouda Harpaz (sole inventor).
- 2) *Related appeals and interferences:* My application 10/031,776 (filing date: 01/23/2002) is similar, but the issues that were raised in the rejection are very different. Both applications are of the same priority date.
- 3) *Status of claims:* Claim 1-2 - Cancelled ; Claims 3-4 - Rejected.  
The appeal is against the rejection of claims 3 and 4.
- 4) *Status of Amendments:* There are no amendments subsequent to final rejection.
- 5) *Summary of the invention:* An electronic board of grid points which can be illuminated and sense touch, which is played by touching points, with a novel behaviour: the board keeps a record of the current player's colour, which is one of two colours of the points. When a player presses a grid point, the board changes the illumination of a pattern of grid points around this grid point to the current player's colour if they were switched off, or reverses their colour if they were on, and then changes the record of the current player's colour to the other colour. When all the grid points are switched on, the board declares as the winner the player of the colour of the majority of the grid points.
- 6) *Issues:* (a) The rejection of Claim 4 for failing to comply with the description (35 U.S.C. 112) is wrong, because the description specifies as the default behaviour of the example board an identical behaviour to the one that is described in Claim 4, albeit in a much less organised way.  
(b) The rejection of claims 3-4 for being anticipated by Blumberg *et al* (35 U.S.C. 102(b)) is based on regarding the second part of claim 3 and all of claim 4 as a "manner in which claimed apparatus is intended to be employed", which is clearly wrong, because what is described in the claims themselves is the behaviour of the board, which is totally independent of the intention of the players.
- 7) *Grouping of Claims:* As in the final action.
- 8) *Argument:*

**(a) Rejection of Claim 4 under 35 U.S.C. 122 -**

(1) In the final action, claim 4 is rejected for failing to comply with the description. However, the first part of the section in the description that is titled "The game Fillit:", i.e. last paragraph of p.7 and the first three paragraphs on p.8 (ending by "... and that can be set by the players."), describes (as the default behaviour of the board) a behaviour which is

identical to the one which is described in Claim 4 (The squareness of the board appears earlier in the second paragraph from the bottom on p.4). Put in another way, if anybody will build a board that behaves according to the paragraphs in the previous sentence, they will get (as the default) an identical behaviour to the one that is described in Claim 4. Patterns 17 and 18 in figure 4 (which are referred to by the text) make it easier to see that.

(2) While the text in the description is admittedly not obvious to read, for a careful reader it is unambiguous, particularly taking into account patterns 17 and 18. For a reader skilled in the art, which must include being able to follow logical rules, who has read the specification thoroughly, it would take at most 10 minutes to work out exactly what the actual behaviour that will result from following the specification in the paragraphs that were listed above. This belief can be verified experimentally, by asking such an expert to perform the exercise.

(3) Since the description presents the behaviour as the default behaviour of the example board, the answer to the question “how the example board behaves by default” would be the behaviour that is described in Claim 4, and an expert that has read the description would be able to answer it after few minutes of careful reading. Thus any expert that will try to figure out how the example board behaves will figure out the behaviour that is described in claim 4.

(4) Therefore, the description does describe the behaviour in Claim 4 in a way that, while not clear, can be understood by an expert in a reasonable amount of time, and will be understood by any such expert that tries to understand the example board. Therefore, Claim 4 complies with the specification.

#### **(b) Rejection of Claims 3-4 under 35 U.S.C. 102**

(1) This rejection is based on erroneous application of the concept “intended to be employed”. Based on this concept, the question of novelty and inventiveness of the behaviour of the board is ignored completely.

(2) However, what is described in the last two thirds of claim 3 and in claim 4 is a behaviour, not intention to employ. A board with the behaviour that is described in claim 3-4 can exist completely independently of any intention to use it for anything. I Think the point can be made clear by considering if a person (or even an alien from another planet) finding such a gadget and knowing nothing about it can experimentally verify that it conforms to claim 3 or claim 4. I believe the answer is clearly true, and every detail in Claims 3 and 4 can clearly be verified experimentally. Thus the details that are described in all of claims 3 and 4 are experimentally verifiable attributes of the board, and not intention to use, which by definition cannot be experimentally verified by running tests on the board itself. Thus all the details in claims 3 and 4 must be included in the consideration.

(3) In the argument for rejection, the behaviour of the board is not mentioned at all. In the “response to arguments” (p.5 of the final action), there is a mention that I assert it is the behaviour, but there are no counter-argument. Instead it says “the claim is that of structure, not a method”. I don’t understand this, because the last part of claim 3 and all of claim 4 is a claim to neither structure or method, but behaviour (which would be a reflection of *some* internal structure, but this structure is not claimed).

(4) Since I assert that the last part of claim 3 and all of claim 4 is behaviour and hence patentable, I believe an objection must be based on one of the following assertions:

- a) The last part of claim 3 and claim 4 do not describe behaviour.
- b) Behaviour is not patentable.

Neither of these assertions is presented in the final action, and there isn't anything that looks like an argument to support them. I believe that the correctness or otherwise of these assertions is the crux of the argument.

(5) Once the "intended to be employed" objection is removed, the question of novelty and non-obviousness of the claims 3 and 4 arises again. As I wrote in the paragraph b.12 of the response to the non-final rejection, I believe claim 4 is obviously novel and non-obvious, and the novelty of the behaviour in claim 3 is also obvious. I have argued in length in the response about the non-obviousness of Claim 3 (b. 1 - 11).

(6) It should be noted that what I argue is that to think about the behaviour that is described in claim 3, the expert, starting from the state of the art, will have to combine many mental steps ("modifications" in my response to the non-final action, paragraph b.5). The combination is not obvious, and therefore the expert is unlikely to perform it. Without combining all the mental steps, the expert will never think about the behaviour which is described in Claim 3. Hence the behaviour that is described in claim 3 is non-obvious, in the sense that an expert in the field is unlikely to ever think about it.

(7) The mental steps are required to reach the point of thinking about the behaviour of the board as described in the claims, but do not constitute part of the behaviour. Therefore the argument that some of the steps are not in the claims does not invalidate the argument. For example, the claims don't mention two players, but the behaviour they describe is useless unless it is used for a two-player game, and therefore will be extremely non-obvious to an expert unless the expert also thinks about two-player games (which is non-obvious in the hand-held gadget that Blumberg et al. describe).

(8) In the "response to arguments" in the final action the main argument against my argument is that "the arguments are drawn to the usage of the device", which is generally true, but this only affects the *patentability* of the *arguments*. It doesn't affect the *validity* of the *arguments*, and it does not affect the *patentability* of the *behaviour*. All it means is that the arguments themselves cannot be claimed, and they are not. What is claimed is the behaviour, and the arguments just show that the behaviour is not obvious.

(9) The action also says the Blumberg et al. can obviously be made "desktop". That doesn't contradict anything I said, because I have already said that this, together with making the board larger, seems obvious (paragraph b.6 in the response to the non-final rejection), and that it is not because of the cost. Maybe the argument can be made clearer by merging points (e) and (f) in paragraph b.5 to one point.

(10) The action also contains objection to the argument of cost because it is "conclusionary", the meaning of which is not clear to me. I believe it is obvious that a larger board costs more, and that experts will tend to look less at the direction of more costly boards, and therefore the cost will make the expert less likely to think of larger boards, i.e. make them less obvious. Note that this is only one step in the combination of mental steps.

Yehouda Harpaz



*Appendix - Claims*

1-2 (cancelled)

3 An electronic board comprising a grid of grid points on a flat surface, where each grid point is a visible element which is capable of detecting when it is pressed, and an illumination source inside or below the surface which is capable illuminating the visible element by either of two colours;

which exhibits a behaviour which makes it useful for playing various games;

and in one of these games the behaviour of the board is as follows:

the board keeps a record of the current player's colour, which is one of two colours above;

when a player presses a grid point, the board changes the illumination of a pattern of grid points around this grid point to the current player's colour if they were switched off, or reverses their colour if they were on, and then changes the record of the current player's colour to the other colour;

when all the grid points are switched on, the board declares as the winner the player of the colour of the majority of the grid points.

4 A board as described in claim 3, where the grid is square, and when a player presses an unilluminated grid point the board responds as follows:

points that are illuminated in the player's colour and are 1 point away from the pressed point on a line of the grid or a 45 degrees diagonal line become illuminated in the other player's colour.

the pressed point and all the points that are unilluminated or are illuminated in the other player's colour and are 1 or 2 points away from the pressed point on a line of the grid or a 45 degrees diagonal line become illuminated in the player's colour.